| Electronic Acknowledgement Receipt   |  |  |  |  |  |  |
|--------------------------------------|--|--|--|--|--|--|
| EFS ID:                              | 2663586  |  |  |  |  |  |
| Application Number:                  | 10801208   |  |  |  |  |  |
| International Application Number:    |  |  |  |  |  |  |
| Confirmation Number:                 | 2034   |  |  |  |  |  |
| Title of Invention:                  | Methods of manufacturing semiconductor devices having a ruthenium layer via automatic layer deposition |  |  |  |  |  |
| First Named Inventor/Applicant Name: | Kwang-hee Lee  |  |  |  |  |  |
| Customer Number:                     | 20792  |  |  |  |  |  |
| Filer:                               | D. Randal Ayers/Michele McMahan  |  |  |  |  |  |
| Filer Authorized By:                 | D. Randal Ayers  |  |  |  |  |  |
| Attorney Docket Number:              | 5649-1277  |  |  |  |  |  |
| Receipt Date:                        | 03-JAN-2008  |  |  |  |  |  |
| Filing Date:                         | 16-MAR-2004  |  |  |  |  |  |
| Time Stamp:                          | 09:30:17   |  |  |  |  |  |
| Application Type:                    | Utility under 35 USC 111(a)  |  |  |  |  |  |
| Payment information:                 |  |  |  |  |  |  |

| Submitted with Payment                   | yes             |
|--|-----------------|
| Payment Type                             | Deposit Account |
| Payment was successfully received in RAM | \$1020          |
| RAM confirmation Number                  | 4797            |
| Deposit Account                          | 500220          |
| Authorized User                          |                 |

## File Listing:

| Document<br>Number | Document Description | File Name | File Size(Bytes) /Message Digest | Multi<br>Part /.zip | Pages<br>(if appl.) |
|--------------------|----------------------|-----------|----------------------------------|---------------------|---------------------|
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| Information:                        |   |  |        |       |   |  |  |  |  |
| Warnings:                           |   |  |        |       |   |  |  |  |  |
| 2   Tee Worksheet (FTO-00)          | iee illio.pai                                       | 28e0cde430952a9dbbb18df4b492d6d6<br>c5053b9e | 110    |       |   |  |  |  |  |
| 2 Fee Workshee                      | Fee Worksheet (PTO-06)                              | fee-info.pdf                                 | 8317   | no    | 2 |  |  |  |  |
| Information:                        |   |  |        |       |   |  |  |  |  |
| Warnings:                           |   |  |        |       |   |  |  |  |  |
|                                     | Appeal Brief Filed                                  |  | 2      | 12    |   |  |  |  |  |
|                                     | Notice of Appeal Filed                              |  | 1      | 1     |   |  |  |  |  |
|                                     | Document Description                                |  | Start  | End   |   |  |  |  |  |
|                                     | Multipart Description/PDF files in .zip description |  |        |       |   |  |  |  |  |
| 1                                   | 5649_1277_Appeal.pdf                                | a68ccd7bed42203b68e229887c81a18<br>48a2a910a | yes    | 12    |   |  |  |  |  |
| 1                                   | ECAO 1977 Appeal not                                | 925553                                       | V00    | 12    |   |  |  |  |  |
|                                     |   |  | 005550 |       | Γ |  |  |  |  |

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## New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

## National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

## New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.